

REMARKS/ARGUMENTS

In response to the Office Action dated June 18, 2004, claim 15 is amended. Claims 11-15 are now active in this application. Claims 1-10 and 16-23 are withdrawn from consideration as being directed to a non-elected invention. No new matter has been added.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 102 AND § 103

I. Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' Admitted Prior Art (AAPA) in view of Yoshii et al. (USPN 5,969,820).

Claim 12 is rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Yoshii et al. as applied to claim 11, and further in view of Kazama et al. (USPN 5,883,668).

Claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Yoshii et al. and Kazama et al. as applied to claim 12, and further in view of Kusaka et al. (USPN 5,589,909).

Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Yoshii et al. as applied to claim 11, and further in view of Kusaka et al.

The rejections are respectfully traversed.

The Examiner maintains that at column 7, lines 42-55, Yoshii et al. teaches:

a controller for controlling the electric charge accumulation time of said light-receiving elements such that a plurality of types of outputs with different electric charge accumulation times are produced by said light-receiving elements, and selecting non-saturated signals among said plurality of types of output signals.

However, this is incorrect. More specifically, column 7, lines 42-55 describe:

This embodiment differs from the first embodiment of FIG. 5 in that a CCD whose charge accumulation time is controllable is used for a detecting means 6d

of light position detecting means, and in that the accumulation time is controlled by means of a controller 9. In this embodiment, *an optical image on the CCD 6d is first photoelectrically converted, and a peak of its output waveform is detected. Then, the peak value is compared with a saturation level of the CCD 6d. The controller 9 then calculates the accumulation time of the CCD 6d, for attaining a predetermined level and, on the basis of the result of calculation, the accumulation time of the CCD 6d is controlled.* In this embodiment, as compared with the first or second embodiment, no optical element is used and a purely electrical light-quantity control system is provided. Thus, an inexpensive system is assured.

Thus, using a detected optical image on the CCD, a peak of the output waveform is detected and compared with the saturation level of the CCD. Then the controller 9 calculates the accumulation time of the CCD for attaining a predetermined level. Base on this calculation, the accumulation time of the CCD (for attaining the predetermined level) is controlled so that the CCD reaches the predetermined level. Since it is described that a single predetermined level is to be attained by the CCD via such control of the CCD, only an output having the calculated accumulation time is produced. Consequently, it is clear that Yoshii et al. does not disclose or suggest controlling the electric charge accumulation time such that *a plurality of types of outputs with different electric charge accumulation times are produced* by the light-receiving elements, and certainly does not disclose or suggest *selecting non-saturated signals among the plurality of types of output signals.*

Thus, independent claim 11 is patentable over AAPA and Yoshii et al., as are dependent claims 12-14, even when considered further in view of Kazama et al. and Kusaka et al. Consequently, the allowance of claims 11-14 is respectfully solicited.

II. Claim 15 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants' Admitted Prior Art (AAPA) in view of Cattorini (USPN 5,955,725).

To expedite prosecution, independent claim 15 is amended to recite features not disclosed in either AAPA or Cattorini. More specifically, claim 15 now recites, *inter alia*:

a selecting circuit for selecting said second signal in the case where said second signal has not been saturated and selecting a signal of a size equal to said predetermined multiple of said first signal in the case where said second signal has been saturated; and

a processor for performing calculations using the selected signal, said selecting circuit including:

a first switch,

a second switch,

a memory,

a comparator, and

an integrator, wherein

said first switch receives the first and second signals outputs the first signal to the memory, and outputs the second signal to the second switch and to the comparator,

the integrator receives the first signal from the memory and outputs to the second switch the signal of a size equal to said predetermined multiple of said first signal, and

the comparator compares the second signal to a reference saturation level and outputs a control signal to the second switch to output the second signal where the second signal has not been saturated, and to output the signal of a size equal to said predetermined multiple where the second signal has been saturated.

The features now recited in claim 15 are disclosed at page 51, line 27 through page 55, line 27 with reference to Fig. 32.

As amended claim 15 is patentable over AAPA and Cattorini, its allowance is respectfully solicited.

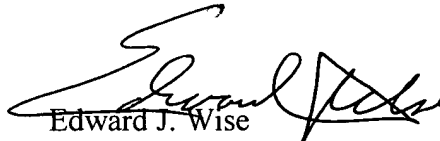
CONCLUSION

Accordingly, it is urged that the application, as now amended, is in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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